SOIL conservation

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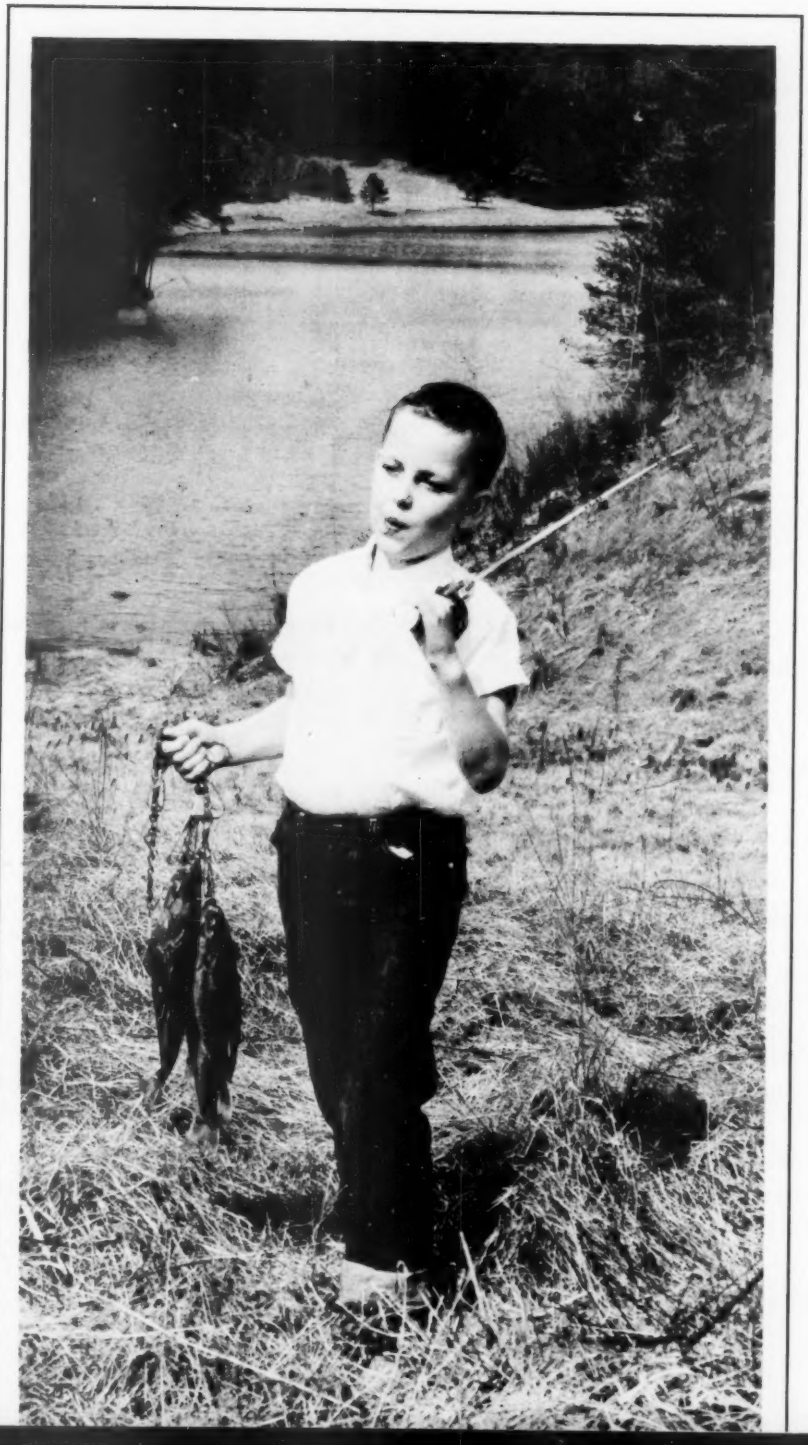

SOIL
conservation

June 1973, Vol. 38, No. 11

With more time for leisure, better modes of travel, and more money to spend on recreation, people everywhere are heading for mountains and streams, coastal beaches, lakes, and campgrounds.

The heavy traffic would indicate that there simply are not sufficient recreation areas.

The Soil Conservation Service can contribute significantly to both public and private efforts to meet outdoor recreation needs.

This issue of SOIL CONSERVATION points out some of the ways.

COVER: This 12½-acre lake near Dawsonville, Georgia, serves two purposes. One is flood control—and isn't it obvious what the second purpose is? It is to Joe Hulsey, Jr., of Cummings, Georgia.

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The outdoor recreation "crop" is growing

Prepared in the Division of Information, Soil Conservation Service, U.S. Department of Agriculture, Washington, D.C. 20250.

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RECREATION— as big as all outdoors

by Dr. Darnell M. Whitt
Deputy Administrator for Field Services, SCS
Washington, D.C.

Americans now spend more on leisure time activities than on national defense. The leisure boom is estimated to have pushed $105 billion into the economy of the United States in 1972. And dollar totals in sales of leisure time equipment have increased about 52 percent in the past 5 years.

American expenditures for recreation exceed the outlay for new housing. They surpass the total of all corporate profits. And they are far greater than the aggregate income of the nation's farmers. According to a study made by the economic unit of *U.S. News and World Report*, the dollar volume of leisure time expenditures will more than double during the 1970's.

The upsurge in outdoor recreation is already straining facilities in state and national parks. Such phenomenal growth far exceeds the expansion of recreation facilities provided by both the private and public sectors. Opportunities have never been greater for developing commercial recreation enterprises, especially quality facilities adjacent or en route to our more popular public attractions.

The mounting interest in camping has triggered a boom of its own. There are 4 million camping vehicles in the United States, ranging from $300 trailers to $25,000 customized motor homes. About 72,000 motor homes were manufactured in 1972; these sold for an average of $10,000. Only 4 years ago, the annual output was 13,200, valued at $114 million.

Public campsites, since 1967, have increased by more than 62 percent. And the number of private campsites is almost double the number of public campsites. One private franchising firm now has more campsites available than the National Park Service.

About 2 million U.S. families own second homes—used primarily on weekends and during vacation. This number is expected to double in the next 8 years.

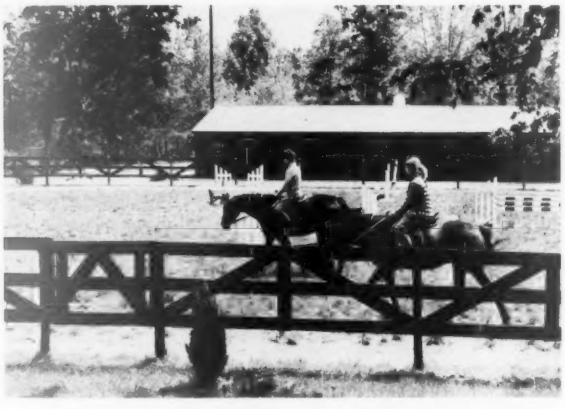
Snowmobiles are proliferating in astonishing numbers. In 1972, more than 1 million were in operation, and it was predicted then that the sale of snowmobiles, tow sleds, suits, and helmets would make snowmobiling a billion-dollar business in 1973.

Private landowners, private and quasi-public clubs, groups and organizations, and local governmental units established or expanded more than 37,323 recreation developments during fiscal year 1972. This was done with help from the Soil Conservation Service, and other federal or state agencies, provided through conservation districts. Such developments to date total more than 700,000.

Recreation potential appraisals

By mid-1973 the recreation potential of natural resources in more than 80 percent of the nation's counties or conservation districts will have been appraised. The system of ap-

What's your pleasure?



praisal was devised by the National Association of Conservation Districts and federal and state agencies concerned with the recreation use of land and water.

An area's potential for outdoor recreation is determined by gathering and interpreting data on its soils, topography, climate, scenic or natural attractions, historic sites, existing and potential water supply, and wildlife. Other factors considered are the size and distribution of the area's population, occupations and income levels of the residents, the proximity and access to potential facilities, and current land use patterns.

This information is most useful at the district or county level but is also of value to bankers and to state and federal government agencies working in the outdoor recreation or natural resources fields. And, of course, land developers and individual land owners or users find it useful if they are considering the development of recreation facilities themselves.

Recreation land and conservation treatment

Most land needs conservation treatment regardless of the use—field crops, grass, trees, or recreation.

The soil survey is often the key to safe land use and proper conservation treatment. Soil

information and other basic resource data are evaluated to determine the conservation practices needed, such as drainage, land shaping and grading, irrigation, fertilizing, planting, and seeding. Almost all soils are good for some uses and poor for other uses.

The Soil Conservation Service provides technical assistance in the development of land, water, plant, and wildlife resources for suitable uses, including outdoor recreation.

Within the Department of Agriculture, SCS has leadership in developing recreation enterprises on private land and is responsible for liaison with other federal, state, and local agencies working in this field.

SCS technical assistance in developing recreation enterprises deals primarily with developing the land and water resources for recreation use, rather than with the design and layout of recreation facilities or assistance with recreation business management.

Some of the services provided on nonfederal lands by SCS through conservation districts are:

1. Park and other recreation area planning: Locating parks and playgrounds on suitable sites is facilitated by using soil survey maps interpreted to indicate both desirable qualities and hazards on each proposed location. Hazards of flooding or pollution, excessive erosion, soils poorly suited for buildings, roads, and trails, and soils that do not withstand pedestrian traffic are only a few of the interpretations that can be made from soil surveys.
2. Resource planning and development: In addition to soil interpretations and vegetative and water management information, SCS provides help in land use and open space planning, conducting inventories of existing recreation areas and facilities, and making appraisals of an area's potential for various recreation developments.
3. Project activities: Many Public Law 566 watershed projects and resource conservation and development projects provide for public and private recreation developments that supplement and complement the recreation facilities already available in the community.
4. Income-producing recreation: Individual recreation enterprises, such as camping areas and lodges, vacation farms, dude ranches, riding stables, shooting preserves, and hunting, fishing, golfing, boating, swimming, or skiing facilities, developed as private business to serve the needs of the public often supplement and complement public recreation facilities.
5. Technical assistance: Individual land owners or users, nonfederal public park offi-

cials, and quasi-public clubs receive technical assistance in planning and applying conservation practices needed for the protection and improvement of land, water, and related resources.

Progress on recreation development

SCS records over the past years show that substantial progress has been made in developing recreation opportunities.

More than 12 million acres of land have been converted to recreation-wildlife use to date. More than half a million acres were converted in 1972 alone.

About 10,000 miles of recreation trails have been established to date. And 1972 was a record year with 705 miles of trails established.

About 40 million acres of uplands and 5 million acres of wetlands have been improved for wildlife habitat. More than 7 million acres of uplands and almost half a million acres of wetlands were improved in 1972.

SCS helped public agencies, including county and municipal governments, in establishing 854 public recreation developments in 1972. The previous high was in 1970 when 611 public developments were established.

Recreation as part of RC&D projects and small watershed projects

Resource conservation and development projects offer excellent opportunities to help meet the demand for outdoor recreation. Through RC&D projects, local people inventory, analyze, and plan to meet their resource, social, and economic needs. At present, 123 projects are authorized, and 71 applications for projects are on hand. Outdoor recreation continues to be one of the most popular RC&D project measures.

Watershed protection and flood prevention projects are also effective vehicles for developing recreation opportunities. The Food and Agriculture Act of 1962 authorized cost sharing to qualified local sponsors for up to 50 percent of the cost of construction, land acquisition, easements and rights-of-way, and basic facilities needed to develop water-related outdoor recreation around lake areas open to the public.

As of June 30, 1972, sponsors of 192 watershed projects in 39 states had planned 221 recreation or fish and wildlife developments, providing an estimated 15.5 million user days of water-based recreation activities such as fishing, boating, and swimming.

Nationwide outdoor recreation plan

SCS, along with other federal agencies concerned with outdoor recreation, is cooperating with the Bureau of Outdoor Recreation in developing a nationwide outdoor recreation plan.

Ten work groups have been established to study problems in providing quality outdoor recreation. Both the public and private sectors are given due consideration for providing future recreation opportunities.

SCS framework plan

SCS, in developing its "framework plan" in 1971, stressed the importance of outdoor recreation as a growing land use. The plan "indicates the direction for future SCS efforts in a role of new emphasis and growing responsibilities."

The framework plan points out that about 1 billion acres of land have potential for rural recreation use and for rural living without seriously encroaching on essential food-producing acres.

The plan gives emphasis to these future needs:

—Greater use of basic soil and water information in selecting and developing recreation and wildlife areas.

—Development of more privately owned recreation areas with particular emphasis on income-producing enterprises.

—An updated inventory of existing and potential recreation areas.

—Greater recognition of the values of recreation, wildlife, and open space on all land regardless of primary use.

More and more people from all walks of life are spending their leisure time outdoors. They want the opportunity to refresh and enjoy themselves in the countryside—skiing, hiking, camping, picnicking, or whatever. The Soil Conservation Service and conservation districts, working together as in the past, can help provide opportunities as big as all outdoors. ♦

This industry is rated "X" —for "excellent"

by Morris S. Gillespie
Public information officer, SCS
Auburn, Alabama

How would you like to picnic under a tall shade tree on your lunch break? Or play a few holes of golf? Or sit on a shaded bank and fish?

Employees of Reliable Metal Products, Inc., in Geneva, Alabama, can do these things during lunch—without leaving the company grounds.

This company's management has recognized its available natural resources and developed them for its employees and the people of Geneva.

On the 30-acre grounds, the company has constructed a 9-hole, par-three golf course—it's

"Hurry up, girls! We only get an hour for lunch." Employees of Reliable Metal Products, Inc., in Geneva, Alabama, can play golf during lunch. The golf course is on the company grounds. Waiting in the background are W. B. Simmons, a stockholder in the company, on the left, and Hugh Carroll, an SCS technician.

Claude Nix, an SCS technician, on the right, discusses conservation treatment for the golf course with W. B. Simmons. The pond is stocked with fish and is used for irrigation.

1,063 yards long, and the longest drive is 180 yards—and five sparkling ponds stocked with bass and catfish. The ponds provide great sport for fishermen and a challenging hazard for golfers.

"A round of golf during my lunch hour gives me an opportunity to relax and to enjoy a change of scenery," said Harold Hix, who is in charge of scheduling and inventory control. He and Johnny Ray, the company's personnel officer, both agree that the golf course has contributed much to the fine attitude of the employees.

W. B. Simmons, a major stockholder in the company, attributes much of the success in retaining high-caliber employees to the pleasant surroundings.

Hugh Herring, the mayor of Geneva, a town of 5,118 people, is lavish with his praise for the man responsible for developing the golf course on the industry's grounds. "Bob Simmons is one of the most civic-minded men in Geneva. He went to great expense to provide recreation benefits not only for his employees but for the townspeople as well."

Mayor Herring believes this opportunity for recreation has had a lot to do with the low crime rate in Geneva.

Mayor Herring continued, "Although the nearest large golf course is in Bonifay, Florida, 17 miles away, we have some good golfers in Geneva. Last year we won the South Alabama Conference, and one of our local boys received a golf scholarship. I give much credit to the experience our people get on this 9-hole course."

When the company's new $254,000 plant was finished, Simmons decided on the unusual landscaping—unusual for an industrial site, that is—because he wanted to do something for the company's employees "who were such an exceptional group of people."

Also, Geneva had few recreation facilities, so the townspeople too would welcome a 9-hole golf course.

One of Simmons' first moves was to request technical assistance from the Soil Conservation Service through the Geneva County Soil and Water Conservation District. Dr. Richard

Guthrie, an SCS soil scientist, was contacted to study the soil, and Jimmy Holland, the SCS district conservationist in Geneva County, assisted in planning the practices for this unusual development. Guthrie and Holland recall that when they first went to look at the area it was a corn patch.

After the soil and topography had been studied, it was decided that the 30 acres of land surrounding the new plant could be used for a golf course. Five small ponds were recommended to provide fishing and irrigation and to make the golf course more of a challenge.

The company also went to the steering committee of the Wiregrass Resource Conservation and Development Project and got top-priority assistance.

Reliable Metal Products, Inc., a manufacturer of extruded-anodized aluminum registers, grills, and diffusers for heating and air conditioning, uses water as a coolant in the anodizing process. Water is pumped from two wells at the rate of 120 gallons per minute.

Because a constant flow of cool water is needed, a large volume of water is available for other uses after it leaves the plant. This water is passed through tanks where it is cooled to 80 degrees Fahrenheit, then put back on the ground for irrigating the golf course and replenishing the ponds. Water from the plant is carried to the ponds by underground pipes.

Although the golf course cost about $9,000 to install, and the maintenance cost is considerable, Simmons says he has no regrets. He is mindful of the benefits to his employees as well as to the community.

"I'm quite pleased that people are using the course," he said, "especially high school students, couples with large families, elderly people, and others who probably can't afford to go out of town to play golf."

Reliable Metal Products is a giant among industries in the eyes of the local people. It helped to improve their community, didn't it? ♦

New Town on Matejcek Dam

A NEW TOWN SPRINGS UP IN WINTER on Matejcek Dam near Lankin, North Dakota. About 30 buildings, used of course as fish houses, dotted the ice cover of the reservoir last winter.

The houses are of all shapes and sizes. Some are as large as 14 feet, the maximum size allowed, and are shared by as many as three fishermen. Each person who fishes is allowed to have two holes in the ice.

Most of the houses are heated. Some have oil burners, some burn wood, and a few use bottle gas for heat.

At season's end, early in April, the ice was about 36 inches thick on Matejcek Dam. The multiple-purpose dam was built in 1966 on the Middle-South Branch of the Forest River watershed. It has a drainage area of 99.13 acres. The dam is 80 feet high, and its volume is 520,700 cubic yards. ♦

The Barrons of Ox-Shoe Ranch

by Warren W. Brown
District conservationist, SCS
Red Bluff, California

The Lassen Ox-Shoe Ranch, in the morning shadow of towering Lassen Volcanic Peak in the California Cascades, was built by beef, beans, and bronc busters, its owners like to point out.

The Barrons, Bruce and Elna, bought the ranch in 1960, meaning to go into the cattle raising business.

The ranch was already the home of the Manton Frontier Days Rodeo. Conceivably it was the presence of the rodeo arena that soon had the Barrons thinking about turning the place into a recreation ranch.

Even before he made his down payment, Barron called at the office of the Lassen View Resource Conservation District in Red Bluff. The previous owners of the ranch had been cooperators with the district, and Barron promptly signed up to continue the conservation work.

The conservation plan for the ranch included development and expansion of springs, reservoirs, and irrigation systems and improvement of brush-covered pastures for grazing. This work fitted well into the plans taking form in the minds of Bruce and Elna Barron.

After getting advice from the Soil Conservation Service about land capability and alternate land uses, the Barrons plunged them-

It's not likely that these two young visitors to the Lassen Ox-Shoe Ranch are thinking of boycotting that beef. Bruce Barron, proprietor and host, bastes the barbecue on the giant spit driven by the waterwheel in the background.

The ranch offers its guests swimming, trout fishing, picnicking in a cool, pleasant setting—and a rodeo! (Photographs courtesy of Colin Davis.)

selves into the work of improving the rodeo arena and other recreation facilities on the ranch.

It had been a fitting gesture of western hospitality to provide—for a fee, of course—a beef-bean barbecue for the rodeo participants and spectators. But dust and flies from the rodeo grounds made the original barbecue pit and serving grounds highly unsuitable. The Barrons found an ideal spot just below the rodeo arena where a small crooked stream made its way through a brushy valley.

There were drawbacks, however—dense vegetation, downed logs, and rotting tree stumps.

Barron manned an ancient bulldozer for his task. He carefully avoided damage to the stream and the clumps of alders along its banks. When he finished, he had a shady 2-acre island, with the stream tumbling on either side, as the place for serving the barbecue.

At the lower end of the island, Barron deepened the stream to obtain fill for a small dam. He thereby created a fish pond, which he now stocks regularly with trout.

Where he cleared brush, shaped the streambank, and built the dam, Barron planted perennial grasses to keep the soil in place and to add to the beauty of the setting.

Barron ran across a big waterwheel one day while pursuing runaway cows. He salvaged the wheel, which had been used in years past to power a home hydroelectric plant, and fitted it to a shaft to turn his barbecue spit. Now hundreds of pounds of beef can be roasted at a time with little effort.

The Barrons, seeing the growing popularity of their new venture, decided to sell part of the ranch and concentrate on their recreation park.

They added a combination nature trail and bridle path along a large stream, which flows parallel to their 3,500-foot airstrip. They constructed a pond at the west end of the airstrip where the nature trail terminates.

Aside from their annual rodeo, which is affiliated with Western Approved Rodeos and has received full championship status, the Barrons now restrict use of the park and its facilities to organized groups for weekend outings. This allows time for watering and grooming the park and lets the grass recover from trampling feet.

The Barrons believe that anyone having a feeling for the environment can create an outdoor recreation facility that blends into the natural surroundings.

Little capital outlay is needed, they claim, provided you spread the work out over a long period and do a great deal of the work yourself—beef, beans, and bronc busters help too.

It is a venture the Barrons recommend, if you have a dream like theirs. ♦

How a conservation plan started a va

by Ruth Keister Heal
West Virginia Institute of Technology
Montgomery, West Virginia

It was in 1950 when my daddy, Leslie Keister of Upper Tract, West Virginia, became a cooperator with the Potomac Valley Soil Conservation District. A year later he worked out a farm conservation plan with help from the Soil Conservation Service's field office at Franklin in Pendleton County.

At that time I was a sophomore in high school and thinking about college. I was very much aware of my family's financial situation; I wanted to help myself in some way but didn't know how.

I recall when the Soil Conservation Service helped daddy with his farm pond. Boy, was I excited! I had just read a booklet about vacation farms. The booklet discussed what is needed to entice city people to spend their vacation on a farm. It pointed out that farming is somewhat of a mystery to many people, especially those who live in cities, and that children and adults are fascinated by farm operations, conservation practices, farm animals, and open spaces. Adults especially relish the peace and quiet.

I knew that my parents liked people and liked having them

Where can children see, enjoy, and learn about farm animals? At a vacation farm.

acation farm

Moses Taylor, SCS district conservationist, on the left, and Leslie Keister review the conservation plan for Keister's vacation farm.

around—a very important requirement. And our farm is located in a beautiful, easily accessible area. With the pond and other conservation practices that daddy had installed, I was sure we could turn our farm into a vacation place.

I confronted my parents with the idea, and they liked it. In 1952 we were on our way. That year several families spent some time on our farm. I remember how much they seemed to enjoy themselves.

Today my mother and father are still operating the vacation farm I helped to start. They love people and enjoy making friends. I think they have gained a broader outlook on life. They don't have much time to travel, but people bring the world to them. Also, the extra income helps—it helped put me through college. My parents have grossed as much as $350 a week during summer.

The "city slickers" that vacation on the farm also gain something. Aside from experiencing beautiful rural West Virginia, they are learning while vacationing. One New York boy, Ben Martilotta, after vacationing with his parents on our farm, decided to major in forestry and now has a career in conservation with the U.S. Department of Agriculture.

Daddy has more than tripled production on the farm since he began applying conservation practices. I think this is a result of the fine assistance he has received from SCS and other agriculture agencies.

His farming operation includes grassland, livestock, woodland, and wildlife.

Through the years he has constructed farm ponds, developed cool-water springs, installed tile drainage, and applied wildlife and woodland management practices.

For 10 years—while I was finishing high school and college and then teaching—I was a part of our vacation farm, participating in as many activities as possible.

Today I am away from the farm—still teaching, and I make sure all my students know the value of conservation, on the farm and in the city. ♦

The Keisters love children and enjoy showing them around the farm.

Bringing back prosperity

by Jerry D. Schwien
Public information specialist, SCS
Denver, Colorado

Several decades ago, southern Illinois was prosperous mining territory. Then it began to decline in population and growth. Today, a 19,000-acre lake built by the U.S. Army Corps of Engineers is revitalizing this area.

Now that Rend Lake is completed, with its abundant water supply and recreation opportunities, new industry and tourists are beginning to strengthen the local economy.

The new lake not only provides water to 43 communities and rural water districts in a 7-county area but has 13,000 acres of public recreation land surrounding it.

The Soil Conservation Service is helping landowners in the area take advantage of the recreation potential by providing planning and technical assistance in the development of private recreation enterprises.

The first request for SCS help came from Vernon and Lola Kearney, who live in Benton. They asked SCS to survey and design a lake for family recreation. Their lake became a recreation enterprise by chance rather than choice.

"So many people were asking to fish or swim in our lake that we decided to start charging a fee," said Mrs. Kearney. "Last summer we had 400 people in one weekend."

The Kearneys offer camping, fishing, swimming, picnicking, playgrounds, and a recreation center and store. They charge an entrance fee of 75 cents per adult and 50 cents per child. This pays for the privilege of swimming, picnicking, and the use of playgrounds. Fishing costs $2 per pole for adults and $1 for children. Campers pay $3 per day or $15 per week for a family of four.

William A. "Buck" Morris, SCS district conservationist, reviewed soils data with Kearney and recommended a lagoon to handle wastes. Tight clay soils made a septic tank disposal system impractical. A shower house and 34 trailer sites now have sewer hookups into the lagoon.

Nolan Gulley, who owns 80 acres about a quarter of a mile from Rend Lake, also requested SCS help. He operates a grocery and bait shop to supply campers at the lake. He completed his new store last year.

This year he wants to develop some campsites, and eventually he plans to construct two ponds to grow bait for sale. He planted 15,000 trees including white pine, loblolly pine, and walnut. As they grow, he will sell some of the pines as Christmas trees, leaving others to beautify his campgrounds.

Garrison's Lake, a fee-fishing development near Benton, is benefitting from the overflow traffic from Rend Lake. Bob Garrison said, "Many of our customers stop here after leaving Rend Lake. We average 1,000 customers per year—many of them repeats."

Channel cat, bass, and bluegill are the main attractions at Garrison's Lake. Last summer's largest catches were a 5½ pound bass and a catfish weighing about the same. But Bob Garrison says there are 9 and 10 pounders in the 6½-acre lake. He charges $1 per fisherman and 60 cents a pound for catfish and 40 cents a pound for bass and bluegill.

Garrison planted 8,000 Scotch pines, and he also plans to sell Christmas trees.

Morris believes that these private recreation enterprises will continue to grow because of Rend Lake and that the lake's environment and that of the surrounding area have been improved by the private recreation enterprises.

"The Corps of Engineers followed our recommendations in seeding the slopes leading into the lake," said Morris. "They seeded fescue and rye at a rate of 75 pounds per acre and applied 1,000 pounds of 6-24-24 fertilizer and 5 tons of lime. The lush grass should minimize erosion and sedimentation in these critical areas." ♦

It takes two to put up a tent. Camping is just one of the few recreation activities that bring visitors to Rend Lake.

(Above) Fescue and orchardgrass were recommended by the Soil Conservation Service to prevent erosion on the slopes around Rend Lake in Franklin County, Illinois. W. A. "Buck" Morris, SCS district conservationist, has helped many private landowners with recreation developments around the lake.
(Below) Vernon's Lake, a private recreation development in Benton, Illinois, is ideal for getting away from the pressures of everyday-living—for young and old.

HUNTING ALLOWED!

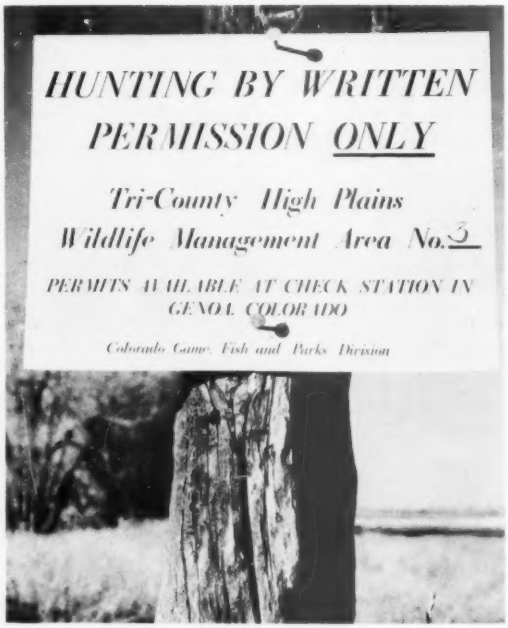
by Robert Tully
Small game supervisor
Colorado Division of Wildlife
Denver, Colorado
and Eldie Mustard
State biologist, SCS
Denver, Colorado

To a hunter, the unfriendliest words in the English language probably are "no hunting."

In eastern Colorado, in Lincoln County, 35,520 acres of private land are being improved for pheasant habitat—and hunting IS permitted.

This open-hunting territory, called the Tri-County High Plains Wildlife Management Area, originated with an offer by Alan Moldenhauer to turn over some land to the Colorado Division of Wildlife to be developed for wildlife.

Moldenhauer and his friend, Jerry Withington, both farmers in Lincoln County, talked to other farmers in the area and found many who were interested not only in developing some of their land for wildlife but also in giving their city cousins the opportunity to hunt on their land. It wasn't long before a wildlife management program got started.



Private landowners in Lincoln County, Colorado, have opened up 35,520 acres of their land to hunters. To hunt, just do what the sign says—get a permit at the check station.

Those participating in this truly cooperative venture include:

(1) Private landowners who provide, through a long-term agreement, the land for wildlife habitat development and hunting.

(2) Colorado Division of Wildlife, which furnishes the men and money for wildlife habitat development, check stations, putting up signs, and designating hunting areas.

(3) Soil Conservation Service, which gives technical assistance and onsite recommendations to landowners.

(4) Colorado State Forest Service, which provides tree and shrub planting stock.

The cooperative wildlife management program began in February 1970. In the spring of that year, about 70 acres of wildlife habitat were planted.

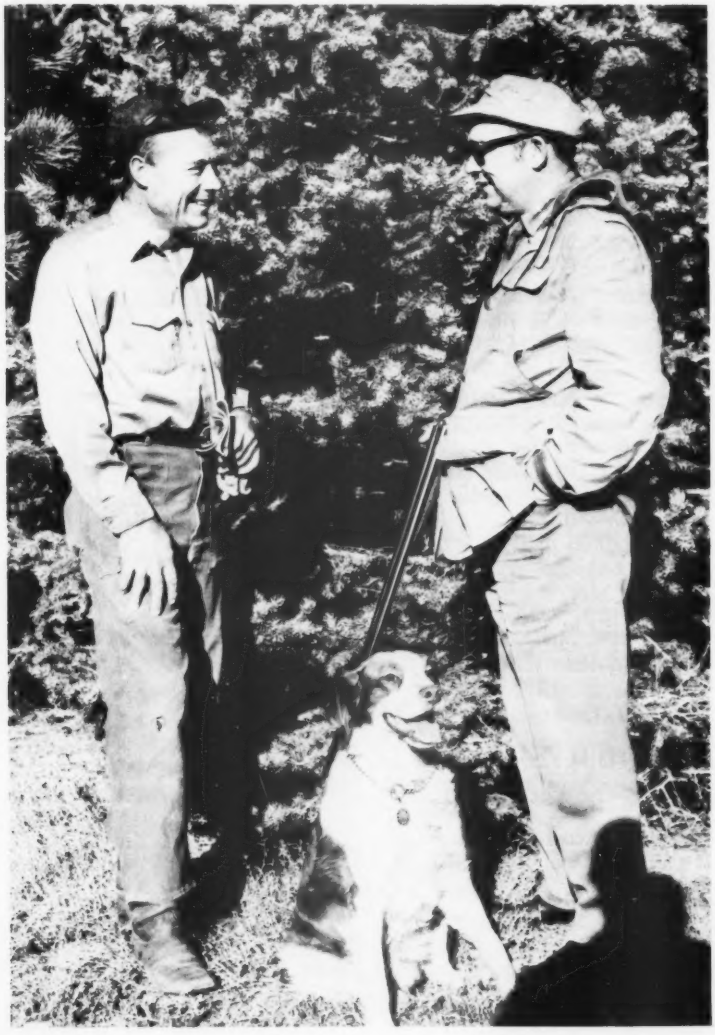
Most of the owners of those 70 acres were members of the High Plains Soil Conservation District and had a conservation plan for their land. The soil information in the plans provided the basis for selecting suitable trees, shrubs, and grasses for the various areas.

The Colorado Division of Wildlife provides the funds and labor for developing and maintaining the wildlife habitat areas. This includes planting, cultivating, and fencing as needed to create new wildlife habitat.

The 70 acres planted in 1970 provided a chance to field test the basic ideas.

Perry Olson, game biologist

A happy trio: a landowner who welcomes hunters on his land, a hunter, and an eager dog.



with the Colorado Division of Wildlife, planned, organized, and set up the permit hunting system used in the wildlife management area.

Participating farmers were asked to designate those areas where hunting would be allowed and, more importantly, those areas where no shooting would be permitted, usually around the farm homestead and feedlots.

The land designated for hunting was divided into several areas to distribute hunters evenly and help prevent overuse and accidents. No more than five hunters at a time are allowed to hunt in each of the 640-acre areas. A large party, however, generally is permitted to hunt together.

Those who want to hunt must first visit the check station in Genoa. There, in exchange for their hunting license, hunters are issued a permit and assigned to an area. Hunting licenses are returned upon completion of the hunt.

Hunters like being greeted by signs that say "welcome" instead of "no trespassing." In this part of Colorado, because enough people care about developing wildlife habitat, the greetings are nothing but friendly. And hunters show their appreciation by coming back again and again. ♦

Nature on exhibit

by Carl R. Stamm
District conservationist, SCS
Flint, Michigan

Discovering buckwheat seeds.

The For-Mar Nature Preserve and Arboretum is a green oasis surrounded by an asphalt and concrete jungle.

The 285-acre nature center on the outskirts of Flint, Michigan, used to be a dairy farm. Now it is to be preserved in perpetuity as a nature study area, arboretum, and wildlife sanctuary.

A substantial part of the acreage was given to the Genesee County Parks and Recreation Commission by Mrs. F. K. Merkley; another part was acquired through Mott Foundation funds. Mrs. Merkley lives on 10 acres reserved for her for life.

Forbes and Martha Merkley—the name of the nature center is derived from their first names—were avid outdoor enthusiasts and nature lovers. "We always wanted to preserve our land for future generations to enjoy as we did," said Mrs. Merkley.

"My late husband could see urban development gradually creeping in all around us. This gave him all the more reason to want the farm maintained in a natural state."

An agreement between Mrs. Merkley and Genesee County gave the county its first nature center.

As a first step toward developing the area for use as a nature center, the National Audubon Society prepared a "survey report and outdoor education plan."

The Soil Conservation Service made its first contribution at this point. At the request of Kenneth Smithee, director of the Genesee County Parks and Recreation Commission, it provided soil information for use in the Audubon report. The Audubon planning staff was also very receptive to SCS suggestions for pond sites and wildlife habitat development.

Although hampered by insufficient money and personnel, the nature center has come a long way. Nearly 3½ miles of woodchip nature trails have been completed. The chips came from trees killed by Dutch elm disease and removed from Flint city streets.

Two wildlife ponds have been built following SCS recommendations. One, a circular pond with an island in the center, was dug in an old oxbow of Kearsley Creek. Spoil from the pond was used to build access trails and observation points. Wildlife and waterfowl use of the pond has been beyond expectations, reports Dennis Zawol, chief naturalist of the parks and recreation commission.

The other pond relies on runoff for its water. A 1,200-foot-long diversion channel directs surface water to the pond. A windmill donated by the Flint Yard and Garden Club keeps water in the pond during the dry months. A building on a site overlooking this pond is part of future planning.

Wildlife food strips were planted and have been heavily used. SCS recommended contour strips of buckwheat, corn, soybeans, sunflowers, and millet alternated with alfalfa meadow. Byron Ashbough, the commis-

Looking for maple leaves—and insects.

Learning about the past.

sion's chief of outdoor education activities, noted that the buckwheat was eaten as fast as it ripened. Access trails for observation have been located near the food plots.

SCS prepared two soil monoliths for the proposed interpretive building. Both have been on display in the interpretive building now in use. Two soil profile pits were dug; a typical soil profile can be seen along one of the nature trails.

The parks commission purchased shrub and tree seedlings from the Genesee Soil Conservation District. Autumn-olive, American cranberry, nannyberry, and dogwood are some of the fruit-bearing shrubs planted to provide food and cover for wildlife. White pine and white spruce seedlings were planted to provide cover, screens, and borders. Prairie grass was seeded in the spring of 1972.

Emphasis to date has been on the nature preserve zone. Much is yet to come. The aboretum, for example, will have extensive plantings.

The 13-acre land laboratory is being prepared for use by schoolchildren. They will get firsthand experience in working with soil, plants, and rocks.

A special education area has been reserved for the visually, mentally, and physically handicapped.

The interpretive center now in use is a remodeled house. It has a briefing room with outstanding displays and exhibits. Educational materials provided by the Genesee Soil Conservation District are frequently used in displays.

Several thousand schoolchildren have already visited For-Mar. Guided tours are conducted specially for them. The center is open on Sunday so that adults too have the opportunity to study nature and get away from the city.

The need for outdoor education in the Flint area is great. For-Mar Nature Preserve is a big step toward meeting this need. ♦

Food strips for wildlife. SCS recommended millet, sunflowers, and buckwheat alternated with meadow.

Horses win, tractors lose

by J. T. Beene
Woodland conservationist, SCS
Portland, Oregon

and W. J. Sauerwein
Regional woodland conservationist, SCS
Portland, Oregon

Clem Ault of Estacada, Oregon, is a certified West Coast tree farmer. He's against pollution, noise, damage to the land and to trees, and believes in profits and an easy pace. That's why he uses horses in his logging operations.

Last summer, it was time for Ault to thin his 40-year-old stands of Douglas-fir. He had completed the last thinning within the last 5 years. This time the trees were sawlog size and averaged about 10 inches in diameter. They would require more work, so Ault decided to use horses instead of a farm tractor.

William Somerville and his sons are horse loggers in Clackamas County. Ault engaged them to log a 7-acre tract on steep slopes. He planned to complement that cutting with some thinning on flatter ground. Ault marked the trees and laid out the skid trails and landing.

Ault had excellent weather for his logging operations—and the market was good. More than 45,000 board feet of lumber had been removed from about 9 acres. Ault received $90 per 1,000

Bill Sommerville, a horse logger in Estacada, Oregon, heads his team of Belgian horses into the woods for another turn of logs.

board feet of logs down to a 4-inch top. This amounted to $450 per acre.

There were interruptions in the logging operations. Somerville entered his horses in some county fair pulling contests—and won. "I wouldn't take $2,000 apiece for these horses," he said. "In pulling contests, they're terrific. And in the woods, it's a pleasure to watch them work," Ault added.

Ault bought his 60-acre tree farm, which lies southeast of Portland, in 1961. He moved there in 1964 after retiring from the Soil Conservation Service and immediately became a cooperator with the North Clackamas Soil Conservation District.

He got help with his conservation plan from John Anderson of the Soil Conservation Service. At various times he has asked SCS foresters, state foresters, and a consulting forester for help and advice.

Skid trails on Ault's land are well laid out. There is no erosion. Culverts have been placed in all creek crossings. The soil is not damaged because the logging was done during the dry season and lightweight equipment was used.

Ault believes in fire prevention. Fire-fighting tools are always ready just in case. He allows no slash burning. He feels it is not desirable because it results in rotten tree butts, even from light intensity fires.

Ault has put to good practice his knowledge and his interest in woodland management. In 1969 he was named Tree Farmer of the Year in Clackamas County and was runner-up in the state contest the same year. He is active in the Small Woodlands Association of Oregon and has served the association on state committees and in various offices at the county level.

Ault has a good stand of trees remaining for the next cutting in about 6 years. The trees can grow faster now because they have more space. And if Ault is already thinking about that next cutting, he very definitely has horses in mind. ♦

This stand of 40-year-old Douglas-fir was recently thinned. About 5,000 board feet per acre were removed. The skid trail was used in horse logging.

Recon . . .

Yes, but who can spare it? The First Men's Garden Club of Dallas, Texas, with special permission from the U.S. Treasury Department, has been testing shredded currency as a soil additive. The club reports that as a mulch the currency packs like peatmoss, it appears to decompose well in the compost heap, and it has shown no signs of toxicity to plants when mixed into the soil.

Who needs it? The Hanover Inn, owned by Dartmouth College, in Hanover, New Hampshire, announced that it will cease all roadside billboard advertising as soon as current leases expire. The manager of the inn is aware that there is much opposition to billboards from environmentally conscious people, and he himself considers billboards "unsightly" but adds that "they are not really useful anymore."

Roads revamped, recycled, removed. Planners are coming up with some imaginative new uses for roadsides. The South Dakota Highway Department has created 70,000 acres of new wildlife habitat by leaving road rights-of-way unmowed during the nesting season, allowing pheasants and other wildlife to use them for cover.

A stretch of roadside 84 feet deep and 1,200 feet long near Anchorage, Alaska, is being converted into a recreational mini-park.

In Washington, D.C., two construction firms are recycling demolished roads and buildings. The crushed asphalt and concrete, including spoil material from the District's under-construction subway system, is processed for use as aggregate.

And in Salt Lake City, the University of Utah is removing campus streets altogether and replacing them with gently sloped grassed berms, or mounds, which are expected to lower temperatures, reduce noise, and make the grounds more scenic.

Congratulations, it's a girl—scout. Charles Walker, SCS district conservationist in Porter County, Indiana, is now an honorary Girl Scout. The surprise membership was presented to Walker for his assistance in the Girl Scouts' 1972 Keep America Beautiful project—road cleanup and tree planting at the Thomas Jefferson Nature Study Area. Walker helped plan the area and locate tree planting sites. The Girl Scouts also presented Walker with a certificate of appreciation.

Diaper changers wanted. To keep horse wastes from leeching into a major watershed and contaminating drinking water, horses used for logging in Oregon's Bull Run Reservoir area, a vast timberland, are being fitted with diapers—the disposable kind. Horses are used instead of machines in winter because they do less damage to the soil, reducing erosion and drainage problems. With horses wearing diapers, the water quality reportedly has improved.

There's been no great fuss from the horses yet, but the same cannot be said for the diaper changers. It is reported that diaper duty is not catching on so fast among loggers as recycling is in other parts of the country.

"Play money." A "reclamation for recreation" project in King County, Washington, will convert a 19-acre piece of previously surface-mined area into a public recreation facility. The county is receiving a grant of $300,000 for this work from the U.S. Department of the Interior. Plans call for two open fields, a softball field, picnic areas, and extensive landscaping throughout.

A similar project underway in Whitley County, Kentucky, so far is the largest of the "reclamation for recreation" projects. Developments there include trails, fishing and boating waters, and campgrounds.

Environmental rights. Under Maryland's newly enacted Environmental Policy Act, all persons have a fundamental and inalienable right to a healthful environment. Modeled after the federal NEPA, the law requires environmental impact statements on state actions impacting the environment.

Erosion and sediment control. Virginia has passed erosion and sediment control legislation requiring adoption of standards and guidelines by the State Soil and Water Conservation Commission. Conservation district programs must be consistent with the guidelines.

Money doesn't grow on trees? The U.S. Forest Service reports that $338,887,336 was collected through sale of products and fees for land use during FY 1972. The Forest Service paid 25 percent of this sum to 39 states and Puerto Rico for redistribution to counties having national forest lands; it kept 10 percent for roads and trails and transferred the rest to the U.S. Treasury. In 1971, $227 million was collected.

Review

Landscaping for Birds. Edited by Shirley A. Briggs. *1973. Audubon Naturalist Society of the Central Atlantic States, Inc., 8940 Jones Mill Road, Washington, D.C. 20015. 62 pp., illus. $1.75.*

Birds add the charms of color, movement, and song to the garden. This booklet tells how to make even a small garden or lot attractive to birds. All that is needed is to provide the basic necessities: food, water, and shelter.

One Washington, D.C., yard of less than a quarter acre attracted 16 nesting pairs of 15 species in one season.

Carefully planned plantings make the difference. And the same plantings can provide the home with shade, an attractive setting, and border screening.

Seven chapters cover "Planting for Birds," "Basic Landscape Principles," "Ornamental Trees for Wildlife Planting," "Shrubs Attractive to Birds," plus some special aspects covered in "Landscaping the Bulldozed Lot," "The Birds Come Back," and "The Bird Garden."

The plant species suggested apply primarily to the Central Atlantic States, but the general principles and observations hold good anywhere.

The authors of the various articles include the names of Irston Barnes, whose column "The Naturalist," has appeared in the **Washington Post** and other newspapers since 1951, and U.S. Congressman Gilbert Gude, who trained in horticulture at Cornell University and is associated with his family's nursery business in Maryland.

The questions of where, what, and how to plant are answered in both basic principles and interesting details and sidelights that the authors learned through experience —all invaluable to the home gardener who wants to attract birds.

To provide shelter for safety and for nesting, these are recommended: tall and small trees, densely grouped shrubs, cluster of evergreens, jungle of vines and briars. Plan for variety and plenty of "edge"—the area of separation between the higher or denser plantings and open spaces.

For food: fruits, berries, seeds, nuts, acorns—throughout the seasons. Use trees, shrubs, vines, even ground covers and flowers.

For water: even an upturned trash can lid will do.

The booklet gains its special eminence from the drawings of Shirley Briggs. Trees, shrubs, flowering branches, fruits, holly sprays, a butterfly bush with butterflies and humming birds are used throughout the booklet and suggest the profusion of vegetation attractive to birds. Also, they add to the printed page the same excitement that a bird does to the garden.

An index and list of suggested source books are included.—**Vee E. Weggel, *Information Division, SCS, Washington, D.C.***

Meetings

June

10–15 Outdoor Writers Association of America, Grand Rapids, Mich.
11–14 International Symposium on Remote Sensing and Water Resources Management, Burlington, Ontario, Canada
17–20 American Society of Agricultural Engineers, Lexington, Ky.
17–22 Ecological Society of America, Amherst, Mass.
17–22 American Institute of Biological Sciences, Amherst, Mass.
18–20 American Plywood Association, Gearhart, Oreg.
20–July 4 American Association for the Advancement of Science, Mexico City, Mexico
23–26 Ecology Council of America, Catoctin Park, Md.
24–28 American Seed Trade Association, Atlanta, Ga.
24–28 National Federation of Business and Professional Women's Clubs, San Juan, Puerto Rico
24–30 National Environmental Health Association, Atlanta, Ga.
25–29 Air Pollution Control Association, Chicago, Ill.

July

1–6 National Education Association, Portland, Oreg.
8–11 American Association of Agricultural College Editors, Guelph, Ontario
8–12 The American Society of Landscape Architects, Mackinac Island, Mich.
10–14 National Society of Professional Engineers, Chicago, Ill.
11–13 The Izaak Walton League of America, Duluth, Minn.
14–18 American Association of Nurserymen, Inc., Minneapolis, Minn.
21–25 National Association of Counties, Dallas, Tex.
21–25 National Association of County Park and Recreation Officials, Dallas, Tex.
26–27 Great Plains Agricultural Council, Manhattan, Kans.

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From the Administrator:

The outdoor recreation "crop" is growing

A year ago this month, Hurricane Agnes hit the mid-Atlantic states with devastating impact. Billions of dollars in flood damages resulted.

Millions of dollars in damages were averted, however, because small watershed project dams and channels did their flood-control job. The mayor of Wellsboro, Pennsylvania, estimates that his town was spared a $10 million flood bill because of the manmade lakes in the Marsh Creek Watershed Project.

But that was last June. What about *this* June?

Today, people are fishing in all three lakes of the Marsh Creek Project. One lake provides the town with added water supplies. Another provides boating and picnicking areas for both local people and a growing number of tourists. Last winter, the same lake was used for ice fishing and snowmobiling.

These Pennsylvania lakes are not unique. A growing number of communities now provide residents with a *variety* of water-based benefits, through advance planning of their water resources. Better opportunities for outdoor recreation are by no means the least of these benefits.

The demand for outdoor recreation of all types is growing, as Dr. Whitt makes clear in this issue of SOIL CONSERVATION. The Service and soil and water conservation districts are contributing to both public and private efforts to help meet that demand.

Small watershed projects that include recreation in their planning help to meet recreation needs.

Local recreation resource inventories, already compiled by a majority of conservation districts, are a valuable source of help to anyone planning for recreation.

And SCS and district assistance to farmers and other landowners in planning public campgrounds, horseback riding areas, hiking trails, fishponds, or farm vacation facilities are other types of help.

Anyone planning a high-quality outdoor recreation enterprise must consider many factors.

SCS concentrates on helping landowners to judge the suitability of their land and water areas for different recreation purposes and then works with them to develop the area in the best possible way, from the standpoint of natural resource use.

Outdoor recreation is a "crop" from land and water, and the skills of the biologist, the soil scientist, the conservationist, and the woodland expert may be needed for the best results.

The public demand for recreation will continue to increase in the next decade. This demand can be met in a way that satisfies the recreation-seeker, provides the landowner with additional income, and results in good, long-term use of land and water resources.

Kenneth E. Grant